

a barrier element positioned at said releasable seal and providing an electrically conductive path between the first electrode and the connector without exposing the first electrode to the external environment.

*Sub 2*  
16. (Amended) An electrode package in which one or more adhesively-applied skin electrodes may be sealed, said electrode package comprising:

*B 2*  
a first adhesively-applied skin electrode,  
a compartment containing said first electrode,  
a releasable seal adapted to seal said compartment and maintain said first electrode in a sealed mode in which said first electrode is not exposed to an external environment,  
a connector of said first electrode, the connector comprising at least one terminal adapted to make and break an electrical connection, and the connector being exposed to the external environment, and

a barrier element positioned at said releasable seal and providing an electrically conductive path between said first electrode and said connector of said first electrode without exposing the first electrode to the external environment.

*Sub 3*  
20. (Amended) An electrode package in which one or more adhesively-applied skin electrodes may be sealed, said electrode package comprising:

*B 3*  
a compartment sized and configured to enclose a first said electrode and to maintain the [for maintaining a] first said electrode in either a sealed mode in which the first said electrode is not exposed to an external environment or an unsealed mode in which the first said electrode is exposed to the external environment, and

a barrier element between said compartment and the external environment, said barrier element providing an electrically conductive path between the first said electrode and a connector of the first said electrode that is located in the external environment,

wherein said barrier element comprises a body of the connector, the body providing the electrically conductive path between the first said electrode and the connector, and

wherein the body comprises a single piece of material and includes an integral hinge.

21. (Amended) An electrode package in which one or more adhesively-applied skin electrodes may be sealed, said electrode package comprising:

a compartment sized and configured to enclose a first said electrode and to maintain the [for maintaining a] first said electrode in either a sealed mode in which the first said electrode is not exposed to an external environment or an unsealed mode in which the first said electrode is exposed to the external environment, and

a barrier element between said compartment and the external environment, said barrier element providing an electrically conductive path between the first said electrode and a connector of the first said electrode that is located in the external environment,

wherein said barrier element comprises a body of the connector, the body providing the electrically conductive path between the first said electrode and the connector, and

wherein the body includes a plurality of strain relief posts for relieving strain on a wire lead located between the first said electrode and the connector.

22. (Amended) An electrode package in which one or more adhesively-applied skin electrodes may be sealed, said electrode package comprising:

a compartment sized and configured to enclose a first said electrode and to maintain the [for maintaining a] first said electrode in either a sealed mode in which the first said electrode is not exposed to an external environment or an unsealed mode in which the first said electrode is exposed to the external environment, and

a barrier element between said compartment and the external environment, said barrier element providing an electrically conductive path between the first said electrode and a connector of the first said electrode that is located in the external environment,

wherein said barrier element comprises a body of the connector, the body providing the electrically conductive path between the first said electrode and the connector, and

wherein the body includes a first end located in the external environment, a second end located in said compartment, and a central section that comprises said barrier element and includes an arcuate upper portion and an arcuate lower portion,

said barrier element being formed by heat sealing a first wall of the compartment to the arcuate upper portion, heat sealing a second wall of the compartment to the arcuate lower portion, and heat sealing the first and second walls to each other.

23. (Twice Amended) An electrode package in which one or more adhesively-applied skin electrodes may be sealed, the electrode package comprising:

an adhesively-applied skin electrode,

a compartment sized and configured to enclose the electrode and to maintain [for maintaining] the electrode in isolation from an external environment, and

a connector electrically connected to the electrode, the connector [and] comprising at least one terminal and a connector body supporting the terminal and including a first end exposed to an interior of the compartment and in isolation from the external environment, and a second end isolated from the interior of the compartment when the compartment maintains the electrode in isolation from the external environment, the connector [body] providing an electrically conductive path to the electrode from outside the compartment when the compartment maintains the electrode in isolation from the external environment[,

wherein

the electrode is positioned in the compartment and isolated from the external environment,

the electrode is removable from the compartment to expose the electrode to the external environment, and

the connector maintains the electrical connection to the electrode when the electrode is removed from the compartment].

26. (Twice Amended) The electrode package of claim 23, further comprising a second adhesively-applied skin electrode positioned within the compartment, the compartment sized and configured to maintain [maintaining] the second electrode in isolation from the external environment, wherein:

the second electrode is removable from the compartment to expose the second electrode to the external environment.